

Technical University of Denmark



Strategy and Space for Broadcasting Facilities

A Longitudinal Case Study

Jensen, Per Anker

Published in:

Proceedings Trondheim International Symposium

Publication date:

2006

Document Version

Early version, also known as pre-print

[Link back to DTU Orbit](#)

Citation (APA):

Jensen, P. A. (2006). Strategy and Space for Broadcasting Facilities: A Longitudinal Case Study. In Proceedings Trondheim International Symposium: Changing User Demands on Buildings - Needs for Lifecycle Planning and Management (1 ed.). Trondheim: NTNU.

DTU Library

Technical Information Center of Denmark

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

STRATEGY AND SPACE FOR BROADCASTING FACILITIES: A LONGITUDINAL CASE STUDY

Per Anker Jensen, Technical University of Denmark, pje@byg.dtu.dk©

ABSTRACT

The paper is based on results from an ongoing research project on space strategies and building values, which includes a major case study of the development of facilities for the Danish Broadcasting Corporation over time. The focus is to identify, how different space strategies have been implemented in different periods and how these strategies can be related to the general conditions of the corporation. Based on theories from Martha O'Mara's book on Space and Strategy (Free Press, 1999) development in the strategic uncertainty of the corporation is investigated as a main determining factor for changes in space strategy. The paper will also explain how space strategies in different periods deals with the need for adaptability and how adaptability is interpreted differently in various periods. The conclusions include relations between value-based space strategies and the presence of visionary project champions.

KEYWORDS: Space strategy, strategic uncertainty, adaptability, project champions

INTRODUCTION

This paper deals with space strategies – or corporate real estate strategies - understood as strategies for managing the capacity and quality of building space needed for the development of an organization. Real estate strategies in relation to commercial property are not covered. Space strategy is regarded as an integrated part of strategic Facilities Management.

The basic theoretical questions in this paper are to identify the main drivers for development and changes in space strategies and how to categorize different space strategies. These questions are investigated in literature studies and the results are tested in a case study of the space provision for DR (Danish Broadcasting Corporation) during the 80 years of the corporation's existence. Based on empirical research the development of DR is divided into 7 distinct periods with different space strategies and partly based on differences in the strategic uncertainty. Furthermore, it is analyzed how the space strategies deals with adaptability in varying ways in different periods.

The research is part of an ongoing project on space strategies and building values, which involves a major case study of the development of facilities for DR. The paper starts with a description of the research methods applied and the purposes of the research, followed by a presentation of theory on space strategies. Afterward the case study is presented as well as the major findings in relation to space strategies and finally conclusions are drawn.

RESEARCH METHODS AND PURPOSES

The data collected in the research project are partly based on interviews and a small questionnaire survey, but the results presented in this paper are mainly based on literature studies and archive research. The literature studies has both been of a theoretical nature related to space strate-

gies in literature on facilities management and of empirical nature with focus on the development of space provision in DR. The archive studies have supplemented the empirical literature studies and have include studies of archives at DR's internal library and archive as well as archives on some of DR's major building projects at the Danish National Archive (Rigsarkivet).

As part of the research all annual reports from DR have been studied and timelines of quantitative data like development in annual number of broadcasting hours of radio and television, expenditure and number of staff have been established. The development in DR is analyzed in relation to international development in broadcasting and the general development in society during the same historical period.

In this paper the case study is on one hand used to test the theory of space strategies. On the other hand the case study is used together with the theory to get a deeper understanding of the development in DR's space provision. The research aims to contribute to the development of theory on space strategy mainly by providing an increased empirical foundation. Furthermore, the research attempts to provide an exemplary way to study space provision to create more consciousness about the importance and conditions for space strategies among facilities managers.

THEORY ON SPACE STRATEGIES

A space strategy will always be based on some presumptions or policies, for instance whether a company prefers to own or rent their facilities. Both policies and strategies can be explicitly expressed or implicit, but in either case the practical management and decisions on space will be an indication of specific policies and a certain strategy. The need to explicitly express policies and strategies of space is related to the strategic importance of space in a specific situation and time period.

Strategic importance of space

Barrett & Baldry (2003) discuss the difference between strategic and operational decisions. They develop a diagnostic checklist according to which a problem is strategic if most of the following criteria are fulfilled: The problem occurrences are rare, the consequences are radical, serious, widespread, long-lasting and precursive with many parties involved.

It is characteristic for space provision that most companies only occasionally make major decisions. According to O'Mara (1999) they take place in average every 3-5 years in bigger American companies. Such decisions mainly occur when new building projects are initiated, buildings are going to be bought or sold or major rental arrangements started or ended. In these situations the strategic importance of space decisions is obvious, because the decisions will have serious long-term consequences on the companies' economy and possibilities to develop with great side effects on staff and collaborating partners. Between such decisions space is important as a physical frame for the company and responsible for considerable expenses, but it does not necessarily need much ongoing attention among the top management of the company. Space is usually just taken for granted.

Therefore it is relevant to distinguish between generic strategic areas and current strategic areas (Jensen, 2004). Generic strategic areas are generally of great importance for the long-term development of the company, but they do not necessarily require much ongoing attention from the top management. Current strategic areas are areas where specific internal or external developments make it necessary to frequently make critical decisions of importance for the company's long-term development. Space is characterized as a generic strategic area, which occasionally becomes a current strategic area for the top management of companies. In comparison areas like product development and market position have a more constant need for attention from top management as they are of great importance for companies' income.

Strategic adaptation of space

The most important aspect of space strategy is to ensure the long-term adaptation of space to companies' need for development. Space strategies enable competitive advantages by supplying the right resources in the right place at the right time at the right cost. Real estate and facilities fulfill two critical roles; the first role is to physically support the production process and the second role is the symbolic representation of the organization to the world. O'Mara (1999) defines three generic space strategies based on analyses of space provision in more than 40 American companies: Incrementalism, standardization and value-based strategy. The strategies are mainly dependent on the companies' strategic uncertainty about their future development.

Incrementalism means that adaptations of space are made only in small steps when absolutely necessary and extra space is usually rented to avoid major capital investments. This strategy is mainly applied by companies under great uncertainty, which is typical for new companies in the start-up stage, where the demand for the companies' products is impossible to predict. The strategy can also be applied by companies under fast growth, where acquiring extra space rapidly, when needed, has high priority. In markets with rapid economical or technological changes or general great uncertainty this strategy is also often used.

Standardization means that both design and decisions on space are strongly regulated and based on strict long term plans. This strategy is mainly applied by companies under low uncertainty. This is typically large companies with a well consolidated position in a relatively stable or expanding market and often with distributed localization. The strategy often involves standardization of both design processes and design outcome.

Value-based strategy means that the symbols and values of the organization play an important role in decisions on space. This strategy is mainly applied by companies under medium uncertainty. This is typically companies that use building projects to promote their position both by creating optimal physical frames for production processes and by utilizing the buildings as a symbol in relation to the surrounding world. It can be relative new companies that have reached a level of increased certainty about the future and a need to make this manifest. Also companies which have survived a major crisis period or companies with a new management who wants to create and signal major changes will often apply a value-based strategy.

A company's strategic uncertainty can according to O'Mara be analyzed from the following factors in the surroundings: Finance, competition, customers, suppliers, politics and technology.

CASE STUDY FINDINGS

DR was established in 1925 as a state institution with monopoly in Denmark on radio broadcasting. In the 1950's television was added and DR kept the monopoly on nationwide television broadcasting until 1988. From the beginning DR was financed fully by license fees and this is still the main income. DR is not allowed income from commercial adverts. The political control of DR has always been strong although there has been a change towards more independence, particularly after losing the monopoly status. Until then DR's budget was decided annually by the government while the budget and other conditions are now decided for periods of 3-4 years.

The overall development in DR over time is illustrated by the annual expenditure and number of staff from 1925 to 1959 in figure 1 and from 1960 to 2004 in figure 2. Expenditures are not indexed and the scale for expenditure is 100,000 DKK in figure 1 and million DKK in figure 2.

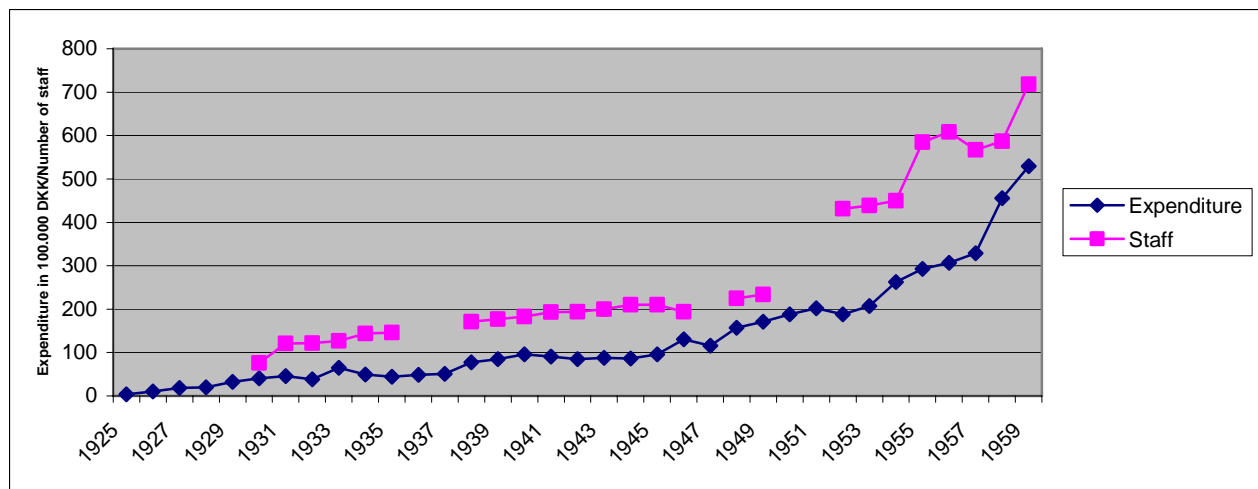


Figure 1. DR's expenditure and staff 1925-1959 (Jensen, 2006)

Figure 1 shows a gradual and almost parallel increase in both expenditure and staff from the beginning. The sudden increase in staff around 1950 was caused by transfer of technical staff working for DR from P&T (Danish Post and Telegraph Corporation). During the 1950's staff increased rapidly but expenditures increased even more due to investments in television and FM-network.

Figure 2 shows that the steady increase continued for both expenditure and staff after 1960 but during the 1960's the number of staff exploded due to the strong development of television and more radio channels. From the early 1970's to the end of monopoly in 1988 the increases in expenditure and staff were again almost parallel. Since 1988 the number of staff has been quite stable, while expenditures in general have increased. This is due to increased productivity and outsourcing of both program production and service functions.

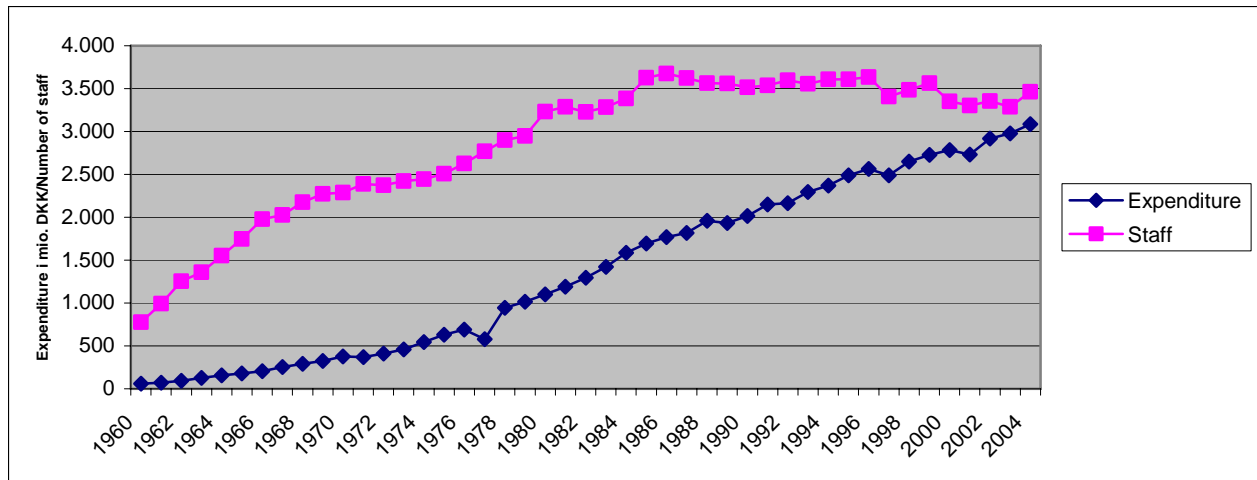


Figure 2. DR's expenditure and staff 1960-2004 (Jensen, 2006)

DR has mainly been located in purpose designed buildings financed by the annual income from license fees. DR has in general not been allowed to take out mortgages or other kinds of loans without special permission from the government. The current project of building a new headquarters in Copenhagen (DR BYEN) is the first building project, which is mainly financed by state guaranteed loans.

The analysis of DR's general development, the strategic uncertainty and space provision has resulted in a division of 7 periods characterized by different space strategies. This is explained below through a description of each period.

Incrementalism during the early years of radio 1925-1933

During the early years the uncertainty about DR's future was very great both in relation to finance, customers, politics and technology. Only in relation to competitors was there no immediate uncertainty because of the monopoly – except for foreign radio stations but none of these broadcasted in Danish. The first year was a test year and DR just managed to get the prospected income from license fees, but DR quickly turned into a big success with many more listeners and higher income than expected. The organisation expanded quickly and invested heavily in new technology for production and transmission to increase the quality of broadcasting.

Initially DR took over existing production facilities with a radio studio and technical equipment at a P&T building in Copenhagen. Offices facilities were placed subsequently in two different buildings around Copenhagen during the first year before they could be situated close to the production facilities by the end of 1926. In 1928 all of DR moved to a rented place, where improved studio facilities were established including the worlds first radio concert studio with audience.

However, before DR's move the Danish minister of public works, who was responsible for DR, had decided to build an extension to the Danish Royal Theater with a new theater hall but including space for DR and based on DR being the owner of the building and renting out the theater

hall. This was clearly a way to economically support the Royal Theater by DR's steadily increasing income from license fees, but DR had to accept this solution.

The new extension - nick-named Stærekassen (nest box) - was finished with delays in 1931, but already during construction it became clear that the architect had not implemented promised measures for sound insulation between the theater hall and DR's radio studios. In the meantime DR's organization had expanded rapidly, and therefore the new building did not provide enough space, so DR had to rent office space in a neighboring building and keep on renting the concert studio. Furthermore, after only two years the Royal Theater could no longer afford to rent the theater hall, and DR was forced to take it over without it being really useful for radio production. The case was all together a big scandal, and when DR's board required permission to develop a new purpose designed building it took an expert inquiry to convince the minister that it was justified.

The space strategy in the early years of radio from 1925 to 1933 was clearly an incremental strategy with several changes in space provision to accommodate the needs of a rapidly expanding organisation and with some expensive learning experiences.

Value-based strategy during the building of Radiohuset 1934-1945

The decision to build a purpose designed building for DR marked the change to a value-based strategy. DR had proven successful and the uncertainty in relation to finance, customers and politics had been greatly reduced. The production and transmission network had been developed and the quality of broadcasting had been raised, but the technology was still developing fast and the science of acoustics was still very young.

Thus, the uncertainty in relation to technology was still high, and this may be partly the reason why engineer Kay Christiansen from P&T became in charge of the new building project. He was the one who by chance discovered the problems with lacking sound insulation during the construction of Stærekassen and he had written the report that convinced the board of DR, that Stærekassen was unsuitable for DR's further development. He managed to get free hands to select a team with an architect, a structural engineer and an installation engineer – the technical committee – who jointly developed the project proposal for the new building, Radiohuset (Radio house), in 1934. After a reduction of the project, partly by no longer preparing for television, a revised proposal including a concert hall was approved early 1936.

The technological uncertainty was reduced by several study tours to other radio buildings in Europe and during design a number of technical experiments were conducted, mainly in relation to acoustics and sound insulation. An acoustic test facility was established on the building site as part of bomb shelters constructed for the building.

The building was for most parts finished in autumn 1940 after the German occupation 9. April 1940, but the concert hall was purposefully drawn out not to be finished before the end of the war in 1945 to avoid it being use for propaganda by the occupation force. The national cultural importance of the building was clearly expressed at a meeting of the building committee in discussions on artistic decoration by the head of DR's board Julius Bomholt – social-democratic

member of parliament and later minister in several periods for among other things culture - in 1941: "a building that should serve all our popular cultural life. It was a building for the whole population. From it would come influences into every home in the country. The work to be taken place in the building should serve to maintain our national identity and our Danish heritage into the future." (Jensen, 2006 - my translation).

Incrementalism during the early years of television 1946-1958

During the war radio broadcasting had been reduced and the first years after was a period of re-consolidation. This was soon changed to a new expansion and new developments by the beginning of television transmissions and launching a second radio channel in 1951 followed by establishment of new transmission networks for television and FM radio.

This created need for more space and the head of television J.Fr. Lawaetz published a book where he described his visions for television house in Utopia. However, he realized that this was a long term goal and he wrote: "But do not believe, that we dream about building a house, we would not dare do that even if we had the money. First we need to gain lots of experiences. The best thing would be, if we when time is due could find an existing building that without to great changes could be made into a temporary television house." (Lawaetz, 1951 – my translation). An incremental strategy could not be expressed much clearer. The first years of television were on an experimental basis with only a few hours of transmission per week, and the political uncertainty was great until 1954, when permanent permission for television was granted.

A plan for renting a specific building for a temporary television building was proposed in DR but it was not approved. Instead it was decided to make an extension to Radiohuset. DR's board decided as early as 1948 to have a project proposal for such an extension produced by the architect of Radiohuset but due to the post-war situation with national monetary problems and lack of building materials etc. permission for the new building project was not given before 1953 and it was finished in 1958. In the meantime space for television had to be found in the existing building including changing a former radio studio into a television studio and renting space for a film studio externally.

Value-based strategy and incrementalism during fast-growth 1959-1972

It soon became clear that the extension of Radiohuset was insufficient to accommodate the expanding needs for both radio and television, and the new media television was regarded by the radio staff as a cuckoo that had taken over their nest. In 1956 DR's board decided it was time to find a site appropriate for a separate television house and in 1959 an architectural competition was arranged. Instead of a house the development became much bigger and was called TV-byen (TV town). It is placed in Gladsaxe 10 km north of Copenhagen and was developed in stages from 1959 to 1981 as a 100,000 m² complex.

The brief for the architectural competition described a project in two stages about the size of the extended Radiohuset but the result turned out to be 4 stages with three times as much space. In the brief the possibilities to make extensions of all main functions – workshops, studios, technical facilities and offices - was stressed and the winning project was based on bands for the different

functions held together by a central joining corridor system, where each band had space for expansions with more buildings. The buildings are on one to three floors except for a 15 storey high-rise office building, which express the grandness of the development and the importance of television as a media.

The strategic uncertainty about television was reduced when the development of TV-byen began. The transmission network was developed nationwide and the number of viewers paying a special television license fee on top of the radio license fee was steadily increasing. In a new law from 1959 television became officially a part of DR's broadcasting, so the political uncertainty was low. However, the technological development within television was rapid and created uncertainty for the building planning and caused changes in the layout. The technical center was originally planned for only one channel and black and white television. This was later changed and an extra technical building was added to allow for two channels and colour television. The latter was introduced in the last 1960's, but a second channel was not introduced before the mid 1990's. At that time the old facilities were outdated and another new building was added.

The office spaces in TV-byen were designed with a strong focus on flexibility in relation to being able to move and reuse walls between offices and create offices of varying sizes for various numbers of workplaces. Ceilings and services are prepared for walls for each facade column,

The explosive expansion of television broadcasting and staff during the 1960's forced DR to complement the value-based strategy for development of TV-byen by an incremental strategy including renting several places around Copenhagen and building temporary pavilion buildings in TV-byen. Around 1960 started regional radio a few hours per week from a number of district radio stations around the countries, and this was also supported by an incremental strategy renting places around Denmark and later on developing new buildings for district radio stations.

Standardization during continued expansion 1973-1983

The developments of Radiohuset and the first stages of TV-byen were managed by political building committees with many members from DR's management, DR's board, the Danish parliament and building specialists. In 1970 DR appointed one of the engineers – Poul Høimark - with experience from TV-byen as building coordinator. He became DR's first professional internal building client.

Around the end of 1960's the political control over DR was under debate as television had become a very powerful media, but a new law from 1973 secured a higher degree of independence of DR's economy. The explosive expansion of the 1960's had changed into a more moderate growth but DR's license fees were still increasing from a higher colour television license fee. In this situation the space strategy changed to standardization.

This was clearly expressed by the last stage of TV-byen, which consists of small modular building blocks with one to two floors joined together by corridor systems. This building system was first used for the television news department in a building with 8 modular blocks. While these were being built it was decided to copy the system with another new building covering 3 modular blocks for other departments placed in another part of TV-byen. Around the same time it was

decided to build 3 similar radio district buildings in three towns in Denmark as standard buildings. This was based on experiences from another new radio district building which was used as a test project for developing the standard building type.

Incrementalism around the end of monopoly 1984-1998

In 1983 a parliamentary commission on media recommended that an independent television station should be established in Denmark to create competition to DR. Although DR's monopoly continued to 1988 it immediately increased the political uncertainty for DR and when the monopoly stopped the political uncertainty was substituted by a serious uncertainty from competitors – not only from the new Danish TV-2 but increasingly also from other Danish and international commercial television broadcasting via satellite transmission. DR's market share gradually went down until the mid 1990's, when the new General Director, Christian Nissen, managed to consolidate and improve the position, among other things by launching the new television channel DR-2.

In this period the space strategy again became incremental with only a few small new buildings and main focus on consolidating DR's space in the main centers TV-byen, Radiohuset and R/TV-huset in Århus. In the process several rented spaces were finalized and also some owned facilities were sold. For the first time an explicit space strategy was formulated in DR.

Value-based strategy during relocation to DR BYEN 1999-

The consolidated market position for DR's television reduced to some degree the uncertainty in relation to finance, competitors and politics, but reduced uncertainty is hardly sufficient to explain why DR decided in 1999 to relocate all functions in Copenhagen to a new headquarters building in Copenhagen called DR BYEN.

The reason was that political opportunities suddenly occurred as the Danish state had started a huge development project in Copenhagen by building a new metro that was planned to be financed partly by developing and selling of land in an area called Ørestad, including former military areas close to the city. The cost of the metro project escalated and the selling of land went very slowly. A big public institution like DR moving to this new development could give a strong impetus to the development. Christian Nissen saw this as an opportunity to transform DR to a new culture with new multi-media production and completely digital technology.

This decision is a clear indication of a value-based strategy and the involvement of the famous french architect Jean Nouvel as architect on a prestigious concert hall gives further evidence to this. When DR moves in to this new headquarters the space strategy is likely to again become incremental for a long period.

DR BYEN is in contrast to TV-byen a very compact complex of 130,000 m². It is organized with four buildings joined together by a grand internal street and with mixed functions in each of the buildings. It is almost impossible to extend the buildings, but it is possible for DR to build new building on the other side of a metro high-rail. The internal adaptability is based on open office spaces with great generality.

CONCLUSIONS

The space strategies used by DR during its 80 years history shift from periods with incremental strategies and periods with value-based strategies. During the 1960's with explosive expansion a value-based strategy is complemented by an incremental strategy to accommodate the rapid developing need for space. That period is for the only time followed by a period with a standardization strategy. This occurs alongside DR establishing the first professional building client function. The seven periods vary between 9 and 15 years with an average about 12 years.

The theory formulated by O'Mara (1999) is regarded to provide a suitable frame for investigating and analyzing space strategies. The concept of strategic uncertainty can be used to explain most reasons behind and changes in space strategies. It is characteristic that DR's space strategies mainly have been influenced by changes in political and technological uncertainty, and the uncertainty was largest in the early years of radio and of television and around the end of monopoly when uncertainty from competitors also became important. Rapid expansion has also shown to be an important factor in the 1960's, and the political opportunity and managerial desire to make major changes in DR are factors necessary to explain the current relocation of DR.

The views on adaptability has changed dramatically in DR from TV-byen in the 1960's to the present development of DR BYEN from main focus on possibility to expand, functional specialized buildings and flexibility in moving office walls towards less focus on the possibility of expansion and main focus on functional integration and generality of office spaces.

It is characteristic that periods with value-based strategy has involved developing a major new building complex. Furthermore, in each case one person has been leading the process with defining the vision and overall intentions with the development. In the 1930's engineer Kay Christiansen was leading the development of Radiohuset, in the 1960's television director J. Fr. Lawaetz was leading the development of TV-byen and recently General Director Christian Nissen has been leading the development of DR BYEN. There seems to be a clear connection between a value-based strategy and a visionary person leading a major project as a "champion".

REFERENCES

Barrett, Peter & Baldry, David (2003): *Facilities Management - Towards Best Practice*. Blackwell Publishing.

Jensen, Per Anker (2004): *Organisering af strategiske supportfunktion i DR*. MBA dissertation.

Jensen, Per Anker (2006): *Ejendomsstrategier og bygningsværdier*. Research report, BYG-DTU (forthcoming).

Lawaetz, Jens Fr. (1951): *Fjernsyn*. Jespersen og Pios Forlag. Copenhagen.

O'Mara, Martha (!999): *Strategy and Place – Managing Corporate Real Estate and Facilities for Competitive Advantage*. The Free Press.